

## **LISTING OF THE CLAIMS**

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-8. (Canceled).

9. (Currently Amended) A double-cone device of a continuous geometry for creating a pressure difference in a fluid flowing through the double-cone device, the device comprising:

- a. a first tapering section having an interior space of hollow frustroconical shape;
- b. a second porous diverging section having an interior space of hollow frustroconical shape, the first tapering section and the second porous diverging section meeting at a neck at [[the]] a smaller diameter end of the interior space of the first tapering section, the second porous diverging section extending from the neck being configured to achieve suction, the second porous diverging section having a plurality of holes with sizes in a range of hole sizes of 50 to 500  $\mu\text{m}$ , the range of hole sizes being configured to provide relatively silent suction of the fluid a material into the double-cone device without reducing [[the]] a suction capacity of the second porous diverging section; and
- c. a third diverging section having an interior space of hollow frustroconical shape, extending from [[the]] a larger diameter end of the interior space of the second porous section, the continuous geometry of the double-cone device being configured to reduce the noise generated by a flow profile of the fluid flowing through the double-cone device.

10. (Currently Amended) The double-cone device according to claim 9, wherein a conical angle of the first tapering section is greater than  $0^\circ$  and at most  $10^\circ$ .

11. (Currently Amended) The double-cone device according to claim 9, wherein a conical angle of the third diverging section is greater than  $0^\circ$  and at most  $10^\circ$ .

12. (Previously Presented) The double-cone device according to claim 9, wherein the second porous diverging section has an end with a larger diameter, the larger diameter being greater than

a diameter of the smaller diameter end of the first tapering section and less than 1.5 times the diameter of the smaller diameter end of the first tapering section.

13-15. (Canceled).

16. (Currently Amended) The double-cone device according to claim 9, wherein the continuous geometry of the double-cone device is configured to cause the flow ~~profiles~~ profile of the fluid in the neck, in the second porous diverging section, and in the third diverging section flowing through the double-cone device to remain in contact with ~~[[the]]~~ a wall of the neck, ~~with the a~~ wall of the second porous diverging section, and ~~with the a~~ wall of the third diverging section.

17. (Canceled).

18. (Currently Amended) A double-cone device of a continuous geometry for creating a pressure difference in a fluid flowing through the double-cone device, the device comprising:

- a. a first tapering section having an interior space of hollow frustroconical shape;
- b. a second porous diverging section having an interior space of hollow

frustroconical shape, the first tapering section and the second porous diverging section meeting at a neck at ~~[[the]]~~ a smaller diameter end of the interior space of the first tapering section, the second porous diverging section extending from the neck being configured to achieve suction, the second porous diverging section having a plurality of holes with sizes in a range of hole sizes of 50 to 500  $\mu\text{m}$ , the range of hole sizes being configured to prevent interference with the continuous geometry of the double-cone device so as to provide relatively silent suction of the fluid ~~without reducing the a material into the double-cone device, and being configured to prevent reduction of a suction capacity of the second porous diverging section, the 500  $\mu\text{m}$  upper bound of hole size being configured to prevent interference with the continuous geometry of the double-cone device so as to provide relatively silent suction of the fluid and the 50  $\mu\text{m}$  lower bound of hole size being configured to prevent reduction of the suction capacity;~~ and

- c. a third diverging section having an interior space of hollow frustroconical shape, extending from ~~[[the]]~~ a larger diameter end of the interior space of the second porous section,

the continuous geometry of the double-cone device being configured to reduce noise levels during operation of the double-cone device.

19. (Currently Amended) The double-cone device according to claim 18, wherein the first tapering section has a conical angle of a value in a range of greater than 0° and at most 5°, the range of the value of the conical angle being configured to allow the double-cone device to achieve reduced noise levels and lower energy input.

20. (Currently Amended) The double-cone device according to claim 18, wherein the third diverging section has a conical angle of a value in a range of greater than 0° and at most 4°, the range of the value of the conical angle being configured to allow the double-cone device to achieve reduced noise levels and lower energy input.

21. (Currently Amended) The double-cone device according to claim 18, wherein the second porous diverging section has an end with a larger diameter of a size in a range of greater than a diameter of the smaller diameter end of the first tapering section and less than 1.5 times the diameter of the smaller diameter end of the first tapering section, the range of the size of the larger diameter being configured to produce an acceptable level of suction force.

22. (Currently Amended) A double-cone device of a continuous geometry for creating a pressure difference in a fluid flowing through the double-cone device, the device comprising:

- a. a first tapering section having an interior space of hollow frustroconical shape;
- b. a second porous diverging section having an interior space of hollow

frustroconical shape, the first tapering section and the second porous diverging section meeting at a neck at [[the]] a smaller diameter end of the interior space of the first tapering section, the second porous diverging section extending from the neck being configured to achieve suction, the second porous diverging section having a plurality of holes with sizes in the a range of hole sizes of 50 to 500  $\mu\text{m}$ , the range of hole sizes being configured to provide relatively silent suction of the fluid a material into the double-cone device without reducing [[the]] a suction capacity of the second porous diverging section; and

c. a third diverging section having an interior space of hollow frustoconical shape, extending from ~~[[the]]~~ a larger diameter end of the interior space of the second porous section, wherein the continuous geometry of the double-cone device is configured to cause the flow ~~profiles~~ profile of the fluid ~~in the neck, in the second porous diverging section, and in the third diverging section~~ flowing through the double-cone device to remain in contact with ~~[[the]]~~ a wall of the neck, ~~with the~~ a wall of the second porous diverging section, and ~~with the~~ a wall of the third diverging section.

23. (Currently Amended) The double-cone device according to claim 22, wherein no drastic changes in the flow profile occur and the flow profile reduces the wear and tear of the double-cone device.